

National Climatic Data Center

DATA DOCUMENTATION

FOR

DATA SET 6402 (DSI-6402)

ASOS SURFACE SYSTEM LOG (SYSLOG)

December 10, 2002

National Climatic Data Center
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1. **Abstract:** System Log Error Messages are generated by the ASOS when an error is detected by the continuous system self-test. When a faulty Field Replaceable Unit (FRU) is identified, the corrective action taken is to replace it. Messages not associated with the FRU's are for general information use only and require no corrective action. Error codes are assigned sequentially, unless otherwise specified.

2. **Element Names and Definitions:**

Weather Bureau-Army-Navy Number (WBAN) - Site identification using WBAN Number. A unique five-digit number assigned to sites by NCDC.

CALL SIGN (CALL) - A four-character station identification number (SID) assigned and maintained by the Federal Aviation Administration (FAA) and used to identify transmission of data over national airways.

Year (YR) - The year of the record. A four-digit number, values starting with 1996.

Month (MN) - The month of the record. Range of values from 01 to 12.

Day (DD) - The day of the record. Range of values from 01 to 31.

Hour (HR) - The hour of the record in Local Standard Time. Range from 00 to 23.

Minute (MN) - The minute of the record. Range of values from 00 to 59.

Message Code (MSG CODE) - A code used to identify certain automated messages. Codes currently in use will be provided by the NWS.

001 - 099 General System Messages

002 PORT has been configured and initialized

100 - 139 CPU Page Error Codes

100 Primary CPU Bus Error (Replace)
104 Primary CPU DRAM Error (Replace)
108 Primary CPU EPROM Error (Replace)
112 Primary CPU Transmission Error Serial Port 1 (Replace)
116 Primary CPU Transmission Error Serial Port 2 (Replace)
120 Primary CPU Loopback Error Serial Port 1 (Replace)
124 Primary CPU Loopback Error Serial Port 2 (Replace)
128 Redundant CPU A Failure (Replace)
132 Redundant CPU B Failure (Replace)

140 - 199 System Codes

140 System Activated - Warm Start Performed
141 System Activated - Cold Start Performed
142 - 199 Available

200 - 244 Comm Status Page Error Codes

200 Failed Loopback Test

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201 Transmission Errors
202 - 244 Available

245 - 249 Maintenance Action Error Codes

245 Maintenance Action
246 Preventative Maintenance Performed for Agency Stock Number
247 Corrective Maintenance Performed for Agency Stock Number
248 Calibration Maintenance Performed for Agency Stock Number
249 Maintenance Performed Using Field Modification Kit Number

250 - 299 Graphics Page Error Codes

250 Graphic Board 6845 CRT Controller Failure
251 Graphic Board 68230 Parallel Interface Timer Readback Failure
252 Graphic Board 8530 Loopback #1 Failure
253 Graphic Board 8530 Loopback #2 Failure
254 Graphic Board 58167 RT Clock Readback Failure
255 - 299 Available

300 - 349 ISIO Page Error Codes - not currently in use.

350 - 449 Power Control Page Error Codes

350 Temperature/Dewpoint Sensor Power Commanded Off, Remained On
351 HO83 Sensor Power Commanded Off, Remained On
352 Wind Sensor Power Commanded Off, Remained On
353 Present Weather #1 Sensor Power Commanded Off, Remained On
354 Thunderstorm Sensor Power Commanded Off, Remained On
355 Visibility #1 Sensor Power Commanded Off, Remained On
356 Visibility #2 Sensor Power Commanded Off, Remained On
357 Visibility #3 Sensor Power Commanded Off, Remained On
358 Snow Depth Sensor Power Commanded Off, Remained On
359 Freezing Rain Sensor Power Commanded Off, Remained On
360 Frozen Precipitation Sensor Power Commanded Off, Remained On
361 Sunshine Sensor Power Commanded Off, Remained On
362 Ceilometer #1 Sensor Power Commanded Off, Remained On
363 Ceilometer #2 Sensor Power Commanded Off, Remained On
364 Ceilometer #3 Sensor Power Commanded Off, Remained On
365 Temperature/Dewpoint Sensor Power Commanded On, Remained Off
366 HO83 Sensor Power Commanded On, Remained Off
367 Wind Sensor Power Commanded On, Remained Off
368 Present Weather #1 Sensor Power Commanded On, Remained Off
369 Thunderstorm Sensor Power Commanded On, Remained Off
370 Visibility #1 Sensor Power Commanded On, Remained Off
371 Visibility #2 Sensor Power Commanded On, Remained Off
372 Visibility #3 Sensor Power Commanded On, Remained Off
373 Snow Depth Sensor Power Commanded On, Remained Off
374 Freezing Rain Sensor Power Commanded On, Remained Off
375 Frozen Precipitation Sensor Power Commanded On, Remained Off
376 Sunshine Sensor Power Commanded On Remained Off
377 Ceilometer #1 Sensor Power Commanded On, Remained Off
378 Ceilometer #2 Sensor Power Commanded On, Remained Off
379 Ceilometer #3 Sensor Power Commanded On, Remained Off
380 Temp/Dewpoint Sensor Configured
381 Wind Speed/Dir Sensor Configured

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382 Present Weather Sensor Configured
 383 Visibility #1 Sensor Configured
 384 Visibility #2 Sensor Configured
 385 Visibility #3 Sensor Configured
 386 Snow Depth Sensor Configured
 387 Freezing Rain Sensor Configured
 388 Frozen Precip Sensor Configured
 389 Sunshine Sensor Configured
 390 Ceilometer #1 Sensor Configured
 391 Ceilometer #2 Sensor Configured
 392 Ceilometer #3 Sensor Configured
 393 Tipping Bucket Sensor Configured
 394 Thunderstorm Sensor Configured
 395 Pressure Sensor #1 Sensor Configured
 396 Pressure Sensor #2 Sensor Configured
 397 Pressure Sensor #3 Sensor Configured
 398 Temp/Dewpoint Sensor Deconfigured
 399 Wind Speed/Dir Sensor Deconfigured
 400 Present Weather Sensor Deconfigured
 401 Visibility #1 Sensor Deconfigured
 402 Visibility #2 Sensor Deconfigured
 403 Visibility #3 Sensor Deconfigured
 404 Snow Depth Sensor Deconfigured
 405 Freezing Rain Sensor Deconfigured
 406 Frozen Precip Sensor Deconfigured
 407 Sunshine Sensor Deconfigured
 408 Ceilometer #1 Sensor Deconfigured
 409 Ceilometer #2 Sensor Deconfigured
 410 Ceilometer #3 Sensor Deconfigured
 411 Tipping Bucket Sensor Deconfigured
 412 Thunderstorm Sensor Deconfigured
 413 Pressure Sensor #1 Sensor Deconfigured
 414 Pressure Sensor #2 Sensor Deconfigured
 415 Pressure Sensor #3 Sensor Deconfigured
 416 - 449 available

450 - 459 Memory Page Error Codes

450 ACU Memory Board #1 EPROM Checksum Failure (Replace)
 451 ACU Memory Board #2 EPROM Checksum Failure (Replace)
 452 ACU Memory Board #1 SRAM Checksum Failure (Replace)
 453 ACU Memory Board #2 SRAM Checksum Failure (Replace)
 454 ACU Memory Board #3 SRAM Checksum Failure (Replace)
 455 ACU PSD Memory Board Failure (Replace)
 456 DCP #1 Memory Board SRAM Checksum Failure (Replace)
 457 DCP #2 Memory Board SRAM Checksum Failure (Replace)
 458 DCP #3 Memory Board SRAM Checksum Failure (Replace)

460 - 499 Modem Page Error Codes

460 Analog Loopback Failure (Replace)
 461 - 499 Available

500 - 699 SIO Page Error Codes

523 Loopback Error (Replace) Transmission Error (Replace)
 524 - 699 Available

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700 - 749 Voice Page Error Codes

700 Watchdog timer (Replace)
701 CPU Test from Digital IO Failure (Replace)
702 Audio Output from Digital IO Failure (Replace)
703 Audio Status from Processor Failure (Replace)
704 - 749 Spare Messages

750 - 799 AD Page Error Codes

750 Register Read Error in AD Converter (Replace)
757 Reference Voltage Errors in AD Converter (Replace)

800 - 999 Power Parameters Page Error Codes

800 Output is Disabled
807 Is On Battery Power
814 High Battery
821 Low Battery
828 Dead Battery
835 TRIAC Tap Changer Open or Shorted
842 Over Temperature Switch Activated
849 RS232 Transmission Error
856 Watchdog Timer Timeout
863 AC Power Restored
870 +2.5 Volts Reference Out of Tolerance
871 +5 Volts Supply A Out of Tolerance
872 +5 Volts Supply B Out of Tolerance
873 +12 Volts Supply A Out of Tolerance
874 +12 Volts Supply B Out of Tolerance
875 -12 Volts Supply A Out of Tolerance
876 -12 Volts Supply B Out of Tolerance
877 +5 Volts VME Rack Out of Tolerance
878 +12 Volts VME Rack Out of Tolerance
879 -12 Volts VME Rack Out of Tolerance
880 +5 Volts RF Modem A Out of Tolerance
881 +5 Volts RF Modem B Out of Tolerance
882 +12 Volts RF Modem A Out of Tolerance
883 +12 Volts RF Modem B Out of Tolerance
884 -12 Volts RF Modem A Out of Tolerance
885 -12 Volts RF Modem B Out of Tolerance
890 Failed. (Replace Supply)
930 Abnormal Operation
937 Inverter Failure
944 Ground Failure
951 Utility Failure
960 Bypassed

1000 - 1049 Ceilometer Page Error Codes

1000 Ceilometer #1 Hardware Alarm (See Technical Manual for Ceilometer)
1001 Ceilometer #2 Hardware Alarm (See Technical Manual for Ceilometer)
1002 Ceilometer #3 Hardware Alarm (See Technical Manual for Ceilometer)
1003 Ceilometer #1 Voltage Failure (See Technical Manual for Ceilometer)
1004 Ceilometer #2 Voltage Failure (See Technical Manual for Ceilometer)

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1005 Ceilometer #3 Voltage Failure (See Technical Manual for Ceilometer)
 1006 Ceilometer #1 Laser Power Low (See Technical Manual for Ceilometer)
 1007 Ceilometer #2 Laser Power Low (See Technical Manual for Ceilometer)
 1008 Ceilometer #3 Laser Power Low (See Technical Manual for Ceilometer)
 1009 Ceilometer #1 Temperature Failure (See Technical Manual)
 1010 Ceilometer #2 Temperature Failure (See Technical Manual)
 1011 Ceilometer #3 Temperature Failure (See Technical Manual)
 1012 Ceilometer #1 Data Quality Bad
 1013 Ceilometer #2 Data Quality Bad
 1014 Ceilometer #3 Data Quality Bad
 1015 Ceilometer #1 Sensor Response Timeout (Check Fiber Optic
 FRU, then See Site Technical Manual for Ceilometer)
 1016 Ceilometer #2 Sensor Response Timeout (Check Fiber Optic
 FRU, then See Site Technical Manual for Ceilometer)
 1017 Ceilometer #3 Sensor Response Timeout (Check Fiber Optic
 FRU, then See Site Technical Manual for Ceilometer)
 1018 - 1149 Available

1150-1199 Temperature Dewpoint Page Error Codes

1150 Sensor Response Error (Check +5 V Power Supply FRU, then Fiber
 Optic FRU, then Transmit Logic FRU, then Aux Power FRU)
 1151 Ta 0 Degree C Calibration Error (Check Enclosure, then Transmit
 Logic Board FRU)
 1152 Ta 50 Degree C Calibration Error (Check Enclosure, then Transmit
 Logic Board FRU)
 1153 Td 0 Degree C Calibration Error (Check Enclosure, then Transmit
 Logic Board FRU)
 1154 Td 50 Degree C Calibration Error (Check Enclosure, then Transmit
 Logic Board FRU)
 1155 Simulated Data Error (Check Transmit Logic Board, then Fiber Optic
 FRU)
 1156 Aspirator Fan Failure (Check Aspirator FRU, then Transmit Logic
 Board FRU)
 1157 0 Degree C Calibration Error (Check Transmit Logic Board FRU)
 1158 50 Degree C Calibration Error (Check Transmit Logic Board FRU)
 1159 RTD Error (Check Aspirator FRU)
 1160 Mirror Servo Error (Check Aspirator FRU, then Transmit Logic
 Board FRU, then Heat Cycle FRU)
 1161 Critical Voltage Error (Check +5 Voltage Power Supply FRU, then Aux
 Power Supply FRU, then Transmit Logic Board FRU)
 1162 Dirty Mirror Flag (Check Aspirator FRU, then Heat Cycle Board FRU)
 1163 Temperature Data Quality Error
 1164 Dewpoint Data Quality Error
 1165 Heat Cycle Occurred Twice in 11 Hours
 1166 Heat Cycle Duration Greater Than 15 Minutes
 1167 No Heat Cycle in 25 Hours

1200 - 1249 LEDWI Present Weather Page Error Codes

1200 Response Timeout (Check Power Supply FRU, then Fiber Optic FRU,
 then Microprocessor Board FRU)
 1201 Simulated Event Error
 1202 Simulated Amount Error
 1203 Checksum Error (Check Fiber Optic FRU, then Microprocessor card
 1204 FRU #8 and #6 Error Code (Replace Transmitter Digital
 Power Supply FRU or Microprocessor Board FRU)

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1205 FRU #7 Error Code (Replace Analog power supply FRU)
 1206 FRU #2 Error Code (Replace Transmitter card FRU)
 1207 FRU #3 Error Code (Replace receiver AGC card FRU)
 1208 FRU #4 Error Code (Replace Signal Processing card 1 FRU)
 1209 FRU #5 Error Code (Replace Signal Processing card 2 FRU)
 1210 FRU #9 Error Code (Replace Hood Heater Power Supply FRU or
 Microprocessor Card FRU)
 1211 FRU #1 Error Code (Replace Headpiece FRU)
 1212 Diagnostic Data Checksum Error
 1213 Data Quality Error
 1214 Software Reset Occurred
 1215 - 1249 Available

1250 - 1408 Visibility Page Error Codes

1250 Sensor V2 Response Timeout (Check Fiber Optic FRU)
 1253 Sensor VG Response Timeout (Check Fiber Optic FRU)
 1256 Simulated Photometer Error
 1259 Simulated Extinction Coefficient Error
 1262 Simulation Data Checksum Error
 1265 Sensor Status Failure
 1268 Receiver +-15 volts Failure (Check cables first, then
 Rvcr +-15V Power Supply FRU, then Receiver Module FRU)
 1271 Transmitter +-15 volts Failure (Check cables first, then Trans
 +-15V Power Supply FRU, then Transmitter Module FRU)
 1274 Transmitter +5 volts Failure (Check cables first, then
 Transmitter Module FRU)
 1277 Transmitter +600 volts Failure (Replace Transmitter Module FRU)
 1280 Transmitter +130 volts Failure (Check cables first,
 then Transmitter Module FRU)
 1283 Processor +-15 volts Failure (Check harness first, then Proc +-
 15V Power Supply FRU, then Controller Module FRU)
 1286 Processor +5 volts Failure (Check harness first, then
 Proc +-5V Power Supply FRU, then Controller Module FRU)
 1289 Inside Ambient Temperature Failure (Check Heaters, thermostats
 or Controller FRU)
 1292 Outside Ambient Temperature Failure
 1295 Xenon Lamp Error (Replace Transmitter Module FRU)
 1298 DayNight window heater Failure (Replace DayNight Sensor FRU)
 1301 Processor Electronic heater Failure (Heaters are faulty,
 Replace Enclosure)
 1304 Transmitter hood heater Failure (Replace Transmitter Heater
 Crossarm)
 1307 Receiver hood heater Failure (Replace Receiver Heater Crossarm)
 1310 DayNight hood heater Failure (Replace DayNight Sensor FRU)
 1313 Transmitter Electronics heater Failure (Replace
 Transmitter Module FRU)
 1316 Receiver Electronics heater Failure (Replace Receiver Module
 FRU)
 1319 DayNight Electronics heater Failure (Replace DayNight Sensor
 FRU)
 1322 Transmitter window heater Failure (Replace Transmitter
 Heater Crossarm)
 1325 Receiver window heater Failure (Replace Receiver Heater
 Crossarm)
 1328 Receiver Electronics heater simulation Failure (Check
 Current Sense FRU first, then Controller Module FRU)

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1331 Processor Electronics heater simulation Failure (Check
 Current Sense FRU first, then Controller Module FRU)
 1334 DayNight Electronics heater simulation Failure (Check
 Current Sense FRU first, then Controller Module FRU)
 1337 Transmitter Electronics heater simulation Failure
 (Check Current Sense FRU first, then Controller Module FRU)
 1340 DayNight window heater simulation Failure (Check
 Current Sense FRU first, then Controller Module FRU)
 1343 Receiver window heater simulation Failure (Check
 Current Sense FRU first, then Controller Module FRU)
 1346 Transmitter window heater simulation Failure (Check
 Current Sense FRU first, then Controller Module FRU)
 1349 Receiver hood heater simulation Failure (Check Current
 Sense FRU first, then Controller Module FRU)
 1352 DayNight hood heater simulation Failure (Check Current
 Sense FRU first, then Controller Module FRU)
 1355 Transmitter hood heater simulation Failure (Check
 Current Sense FRU first, then Controller Module FRU)
 1358 External Temperature simulation Failure (Replace
 Controller Module FRU)
 1361 Receiver detector simulation Failure (Replace Receiver
 Module FRU)
 1364 DayNight detector simulation Failure (Replace the
 DayNight Sensor FRU)
 1367 Transmitter age detector simulation Failure (Replace
 the Controller Module FRU)
 1370 Enclosure Temperature simulation Failure (Replace
 Controller Module FRU)
 1373 RAM Check Error (Replace the Controller FRU)
 1376 ROM Check Error (Replace the Controller FRU)
 1379 Address Check Error (Replace the Controller FRU)
 1382 EEPROM Check Error (Replace the Controller FRU)
 1385 Diagnostic Data Checksum Error (Check the Fiber Optic
 Module FRU)
 1388 Visibility Data Quality Failure
 1391 Photometer Data Quality Failure
 1394 Enclosure Electronics heater Failure
 1397 Receiver Operational Status Failure

1400 - 1549 Other Errors

1400 Transmitter Operational Status Failure
 1403 DayNight Operational Status Failure
 1406 RVR nonperational
 1407 RVR operational
 1408 Heater Thermostat Failure
 1411 - 1549 available

1550 - 1599 Wind Sensor Error Codes

1550 Sensor Response Timeout (Check Fiber Optic FRU, then
 Direction Sensor FRU, then Power Supply Module FRU)
 1551 Simulated Wind Direction Error (Replace Direction Sensor FRU)
 1552 Simulated Wind Speed Error (Replace Direction Sensor FRU)
 1553 Simulated Data Checksum Error (Check Fiber Optic FRU, then
 Direction Sensor FRU)
 1554 Status Error

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1555 Wind Speed Head Error (Check Speed Sensor FRU, then Direction Sensor FRU)
 1556 Wind Direction Head Error (Check Direction Sensor FRU)
 1557 Voltage Out of Range (Check Power Supply FRU, then Direction Head FRU)
 1558 Wind Speed Sensor Head Missing (Check Speed Sensor FRU, then Direction Sensor FRU)
 1559 Wind Speed Temperature Error (Check Speed Sensor FRU, then Direction Sensor FRU)
 1560 Wind Direction Temperature Error (Check Direction Sensor FRU)
 1561 Hall Effect Transducer Error (Check Speed Sensor FRU)
 1562 Fatal HardwareSoftware Error (Check Direction Sensor FRU)
 1563 +5 Volts Failure (Check Power Supply FRU)
 1564 Ground Voltage Failure (Clean ground connections, then Power Supply FRU)
 1565 Direction Head Temperature Out of limits
 1566 Speed Head Temperature Out of limits
 1567 RAM Check Error (Replace Direction Sensor FRU)
 1568 ROM Check Error (Replace Direction Sensor FRU)
 1569 Magnet Check Error (Replace Direction Sensor FRU)
 1570 Encoder Check Error (Replace Direction Sensor FRU)
 1571 Diagnostic Data Checksum Error (Check Fiber Optic FRU, then Direction Sensor FRU)
 1572 Data Quality Check Error
 1573 Wind Direction Sensor Head Missing (Check Speed Sensor FRU, then Direction Sensor FRU)
 1574 - 1599 Available

1600-1639 Pressure Page Error Codes

1600 Pressure Sensor #1 Sensor Response Timeout (Check Cables, then Pressure Sensor FRU)
 1601 Pressure Sensor #1 Data Quality Check Error
 1605 Pressure Sensor #2 Sensor Response Timeout (Check Cables, then Pressure Sensor FRU)
 1606 Pressure Sensor #2 Data Quality Check Error
 1610 Pressure Sensor #3 Sensor Response Timeout (Check Cables, then Pressure Sensor FRU)
 1611 Pressure Sensor #3 Data Quality Check Error
 1612 - 1639 Available

1640 - 1649 Cabinet Temperature Error Codes

1640 Cabinet Temperature Out of Range - Disabling Pressure Sensors
 1641 Cabinet Temperature Out of Range
 1645 Cabinet Temperature is within Pressure Sensor Operational Range

1650 - 1699 H083 Page Error Codes

1650 H083 Sensor Response Timeout
 1651 H083 Sensor Thermal Runaway Error
 1652 H083 Sensor Temperature Data Quality Error
 1653 H083 Sensor Dewpoint Data Quality Error
 1654 H083 Heat Cycle Occurred Twice in 11 Hours
 1654 H083 Heat Cycle Duration Greater Than 15 Minutes
 1654 H083 No Heat Cycle in 25 Hours
 1657 - 1699 Available

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1750 - 1759 Freezing Rain Page Error Codes

1750 Sensor Response Timeout
1751 Probe Failure
1752 Probe Deicing Heater Failure
1753 Electronics Failure
1754 Data Quality Check Error
1755 REQ DEICE FOR 30 SEC, FAILURE
1756 REQ DEICE FOR 30 SEC (NOT ALLOWED)
1757 REQ DEICE for 45 SEC (NOT ALLOWED)
1758 FREEZING RAIN SENSOR INOPERATIVE
1759 REQ DEICE FOR 45 SEC, FAILURE

1760 - 1799 Thunderstorm Error Codes

1760 Response Timeout
1761 Self-test Failure
1762 Input < 11V
1763 Input > 13V
1764 5V Low
1765 10V Low
1766 Data Quality Failure
1767 Thunderstorm Sensor Operational
1768 Thunderstorm Sensor nonoperational
1769 Thunderstorm Reading Missing
1770 - 1799 Available

1800 - 1849 Sunshine Page Error Codes

1801 Sunshine Switch Sensor Response Timeout
1802 - 1849 Available

1850 - 1899 Snow Depth Page Error Codes

1850 Snow Depth Sensor Response Timeout
1851 - 1899 Available

1900 - 1949 Frozen Precip and sensor port Error Codes

1900 Frozen Precipitation Water Sensor Response Timeout
1901 LOCAL SENSOR PORT #1 IS INOPERATIVE
1902 LOCAL SENSOR PORT #2 IS INOPERATIVE
1903 LOCAL SENSOR PORT #3 IS INOPERATIVE
1904 LOCAL SENSOR PORT #4 IS INOPERATIVE
1905 LOCAL SENSOR PORT #5 IS INOPERATIVE
1906 LOCAL SENSOR PORT #6 IS INOPERATIVE
1907 LOCAL SENSOR PORT #7 IS INOPERATIVE
1908 LOCAL SENSOR PORT #8 IS INOPERATIVE
1909 LOCAL SENSOR PORT #9 IS INOPERATIVE
1910 LOCAL SENSOR PORT #10 IS INOPERATIVE
1911 LOCAL SENSOR PORT #11 IS INOPERATIVE
1912 LOCAL SENSOR PORT #12 IS INOPERATIVE
1913 LOCAL SENSOR PORT #13 IS INOPERATIVE
1914 PRESSURE SENSOR PORT #1 IS INOPERATIVE
1915 PRESSURE SENSOR PORT #2 IS INOPERATIVE

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1916 PRESSURE SENSOR PORT #3 IS INOPERATIVE
1917 - 1949 Available

1950 - 1999 Misc Errors Error Codes

1950 DCP #1 Resetting
1951 DCP #2 Resetting
1952 DCP #3 Resetting
1953 System has been reconfigured
1954 REMOTE AFOS QUEUE ERROR
1955 AFOS HW PORT DOWN
1956 AFOS PHONE PORT DOWN
1957 BOTH AFOS HW PORT AND PHONE PORT DOWN
1958 ALL AFOS COMMUNICATION ATTEMPTS FAILED
1959 AFOS COMMUNICATION ATTEMPT FAILURE
1960 PRIMARY OID COMMUNICATION FAILURE
1961 LOCAL OID #1 COMMUNICATION FAILURE
1962 LOCAL OID #2 COMMUNICATION FAILURE
1963 Commercial Power has been Restored
1964 ADAS-ASOS link established.
1965 ADAS-ASOS link down.
1966 ADAS port is ADAS PRIMARY.
1967 ADAS port is ADAS SPARE.
1968 ADAS has disconnected from ASOS.
1969 Write error to ADAS. ADAS-ASOS link down.
1970 AFOS HARDWIRE PORT IS INOPERATIVE and Dial out port NOW IN USE
1971 ADAS HAS STOPPED POLLING ASOS.
1972 ADAS HAS STARTED POLLING ASOS.
1973 VOICE PORT IS INOPERATIVE
1974 UPS PORT IS INOPERATIVE
1975 - 1980 Available
1981 RVR PORT IS INOPERATIVE
1982 RVR PORT OPEN ERROR
1983 No poll from AWIPS. AWIPS-ASOS link down.
1984 AWIPS-ASOS link established.
1985 TOO MANY TRIES ON DOWNLOAD TO DCP, DOWNLOAD ABORTED
1986 EMBEDDED PSD: RTA PORT DOWN
1987 EMBEDDED PSD: ABT PORT DOWN
1988 EMBEDDED PSD: ERROR DETECTED, PROCESSING ABORTED
1989 EMBEDDED PSD INOPERATIVE, USING AFOS PHONE PORT
1990 EMBEDDED PSD: REPLY MESSAGE NOT RECEIVED
1991 EMBEDDED PSD: REPLY MESSAGE INVALID
1992 - 1999 Available

2000 - 2149 PSOS Error Error Codes

Common errors (across several service groups)

2000 PSOS err: TASK TIMED OUT WAITING FOR RESOURCE
2001 PSOS err: UNIMPLEMENTED SYSTEM SERVICE
2002 PSOS err: ILLEGAL SYSTEM SERVICE FUNCTION NUM
2003 PSOS err: ILLEGAL NODE NUMBER
2004 PSOS err: OBJECT HAS BEEN DELETED
2005 PSOS err: ILLEGAL OBJECT ID
2006 PSOS err: INCORECT OBJECT TYPE
2007 PSOS err: OBJECT TABLE FULL

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2008 PSOS err: OBJECT NOT FOUND
 2009 PSOS err: CANNOT CREATE - NO TCB'S
 2010 PSOS err: CANNOT CREATE - NO STACK SPACE
 2011 PSOS err: CANNOT CREATE - STACK TOO SMALL
 2012 PSOS err: CANNOT CREATE - PRIORITY OUT OF RANGE
 2013 PSOS err: CANNOT START - ALREADY ACTIVE
 2014 PSOS err: CANNOT RESTART - NEVER STARTED
 2015 PSOS err: CANNOT SUSPEND - ALREADY SUSPENDED
 2016 PSOS err: CANNOT RESUME - NOT SUSPENDED
 2017 PSOS err: CANNOT CHANGE PRIORITY - OUT OF RANGE
 2018 PSOS err: ILLEGAL TASK REGISTER NUMBER
 2019 PSOS err: CANNOT DELETE - FILES OPEN

Region service group errors

2020 PSOS err: CANNOT CREATE - NOT ON LONG WORD OR MMU PAGE
 2021 PSOS err: CANNOT CREATE - NOT POWER OF 2 OR LESS THAN 4
 2022 PSOS err: CANNOT CREATE - LENGTH TOO LARGE
 2023 PSOS err: CANNOT CREATE - REGION LENGTH TOO SMALL
 2024 PSOS err: CANNOT DELETE - ONE OR MORE SEG IN USE
 2025 PSOS err: CANNOT GETSEG - SIZE EQUAL ZERO
 2026 PSOS err: CANNOT GETSEG - SIZE IS TOO BIG
 2027 PSOS err: CANNOT GETSEG - NOT ENOUGH MEMORY AVAILABLE
 2028 PSOS err: CANNOT RETSEG - SEGMENT DOES NOT BELONG TO REGION
 2029 PSOS err: CANNOT RETSEG - INCORRECT STARTING ADDRESS
 2030 PSOS err: CANNOT RETSEG - SEGMENT ALREADY FREE

Partition service group errors

2031 PSOS err: CANNOT CREATE - NOT ON LONG WORD OR MMU PAGE
 2032 PSOS err: CANNOT CREATE - NOT POWER OF 2 OR LESS THAN 4
 2033 PSOS err: CANNOT CREATE - LENGTH TOO SMALL
 2034 PSOS err: CANNOT DELETE - BUFFERS IN USE
 2035 PSOS err: CANNOT GETBUF - NO FREE BUFFERS AVAILABLE
 2036 PSOS err: CANNOT RETBUF - BUFFER DOES NOT BELONG TO PARTITION
 2037 PSOS err: CANNOT RETBUF - INCORRECT STARTING ADDRESS
 2038 PSOS err: CANNOT RETBUF - BUFFER ALREADY FREE

Queue service group errors

2039 PSOS err: CANNOT CREATE - NO MORE QCB
 2040 PSOS err: CANNOT CREATE OR SEND - NO MESSAGE BUFFERS
 2041 PSOS err: CANNOT SEND - MESSAGE QUEUE FULL
 2042 PSOS err: CANNOT RECEIVE - QUEUE DELETED
 2043 PSOS err: CANNOT RECEIVE - NO PENDING MESSAGES
 2044 PSOS err: INFORMATIVE - TASKS WAITING WHEN QUEUE DELETED
 2045 PSOS err: INFORMATIVE - MESSAGES PENDING WHEN DELETED

Event service group errors

2046 PSOS err: NOT ALL WANTED EVENTS WERE PENDING

Asynch signal service group errors

2047 PSOS err: CANNOT RETURN - NOT IN ASR
 2048 PSOS err: CANNOT SEND - TASK HAS NO VALID ASR

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Semaphore service group errors

2049 PSOS err: CANNOT CREATE - NO MORE SCB
2050 PSOS err: CANNOT ACQUIRE - SEMAPHORE NOT AVAILABLE
2051 PSOS err: CANNOT ACQUIRE - SEMAPHORE DELETED WHILE WAIT
2052 PSOS err: INFORMATIVE - TASKS WAITING WHEN DELETED

Time service group errors

2053 PSOS err: TIME OF DAY NOT SET
2054 PSOS err: DATE INPUT OUT OF RANGE
2055 PSOS err: TIME INPUT OUT OF RANGE
2056 PSOS err: TICKS INPUT OUT OF RANGE
2057 PSOS err: NO TIMERS LEFT
2058 PSOS err: INVALID TIMER ID SPECIFIED
2059 PSOS err: CANNOT CANCEL - TIMER NOT SET
2060 PSOS err: TIMING REQUEST TOO LATE - TIME PAST
2061 PSOS err: INFORMATIVE - WAKEUP DUE TO TIME RESET

Multiprocessor support service group errors

2062 PSOS err: SYSTEM SERVICE CALL NOT SUPPORTED AS RPC
2063 PSOS err: CANNOT WAIT ON REMOTE OBJECT - NO AGENTS
2064 PSOS err: AGENT BLOCKED, THIS IS NOT AN ERROR

MMU SUPPORT GROUP ERRORS

2065 PSOS err: PADDR NOT PAGE-ALIGNED
2066 PSOS err: LADDR NOT ON SECTION BOUNDARY
2067 PSOS err: LOGICAL ADDRESS IS NOT MAPPED ,
2068 PSOS err: CANNOT AFFECT SUPERVISOR MAP ,
2069 PSOS err: COPY TOO LONG - PAST SECTION END ,
2070 PSOS err: SECTION ALREADY MAPPED
2071 PSOS err: NO SECTION AVAILABLE
2072 PSOS err: ZERO MEMORY TO BE MAPPED
2073 PSOS err: MAP REQUEST LENGHT GREATER THAN SECTION
2074 PSOS err: ILLEGAL MODE SWITCH
2075 PSOS err: REGION 0 MISALIGNED (USUALLY 4; 16 FOR MMU
2076 PSOS err: REGION 0 OVERFLOW - SYS DATA AREA
2077 PSOS err: REGION 0 OVERFLOW - OBJ TABLE
2078 PSOS err: REGION 0 OVERFLOW - DEV DATA AREA
2079 PSOS err: REGION 0 OVERFLOW - TASK STRUCT
2080 PSOS err: REGION 0 OVERFLOW - QUEUE STRUCT
2081 PSOS err: REGION 0 OVERFLOW - SEMAPHORE STRUCT
2082 PSOS err: REGION 0 OVERFLOW - TIMER STRUCT
2083 PSOS err: REGION 0 OVERFLOW - PARTITION STRUCT
2084 PSOS err: REGION 0 OVERFLOW - RPC STRUCT
2085 PSOS err: REGION 0 OVERFLOW - REGION STRUCT
2086 PSOS err: REGION 0 OVERFLOW - MMU STRUCTURES
2087 PSOS err: CANNOT CREATE ROOT
2088 PSOS err: PSOS NOT MULTIPROCESSOR VERSION
2089 PSOS err: CHECKSUM ERROR
2090 PSOS err: WRONG PROCESSOR TYPE
2091 PSOS err: MMU ALREADY ENABLED W BAD SETTING
2092 PSOS err: REGION 0 UNIT SIZE MUST MATCH MMU

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Fatal error during multiprocessor operations

2093 PSOS err: ILLEGAL PACKET TYPE
2094 PSOS err: MULTIPROCESSOR CONFIG MISMATCH
2095 PSOS err: GLOBAL OBJECT RECVD CANNOT BE ENTERED IN NODE
2096 PSOS err: COMMON MEM PARTITION LOCK HUNG
2097 - 2149 Available

2150 - 2199 ACU Exec Errors Error Codes

2150 Primary CPU Failed
2151 Queue Creation Error
2152 Semaphore Creation Error
2153 Task Creation Error
2154 Task Starting Error
2155 Task Deletion Error
2156 Timer Stack Semaphore Error
2157 Timer Queue Full Error
2158 Timer Stack Delete Error
2159 Timer Queue Resume Error
2160 Timer Wake After Error
2161 Sync Exec is in Endless Loop
2162 Sync Exec Resume Error
2163 - 2199 Available

2200-2249 Comm IF Errors Error Codes

2200 Remote user tried the access code too many times
2201 A Remote OID Port has gone down
2202 The printer port has gone down
2203 An error occurred on one of the DCP queues
2204 An OID task did not start or started with an error
2205 ACU RadioLine Driver A Comms Failed
2206 ACU RadioLine Driver B Comms Failed
2207 An error occurred sending an event via PSOS
2208 The quality of the DCP communications line is bad
2209 Problem with Remote DCP queue, queue is flushed
2210 The Primary TCCC Port is Down
2211 The Spare TCCC Port is Down
2212 ACUDCP Comms Failed. Check DCP #1 (See Maintenance Manual)
2213 ACUDCP Comms Failed. Check DCP #2 (See Maintenance Manual)
2214 ACUDCP Comms Failed. Check DCP #3 (See Maintenance Manual)
2215 DCP 1 is not responding to requests from RadioLine Driver B
2216 DCP 2 is not responding to requests from RadioLine Driver B
2217 DCP 3 is not responding to requests from RadioLine Driver B
2218 Problem with Local DCP queue, queue is flushed
2219 DCP 1 is responding to syncs from RadioLine Driver A
2220 DCP 2 is responding to syncs from RadioLine Driver A
2221 DCP 3 is responding to syncs from RadioLine Driver A
2222 DCP 1 is responding to syncs from RadioLine Driver B
2223 DCP 2 is responding to syncs from RadioLine Driver B
2224 DCP 3 is responding to syncs from RadioLine Driver B
2225 RadioLine Driver A has reestablished DCP communications
2226 RadioLine Driver B has reestablished DCP communications
2227 DCP 1 Has Requested Download
2228 DCP 2 Has Requested Download

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2229 DCP 3 Has Requested Download
2230 DCP 1 Has Reset to Boot Proms
2231 DCP 2 Has Reset to Boot Proms
2232 DCP 3 Has Reset to Boot Proms
2233 DEBUG: Comms Failure
2234 Radio Communications are in a hard failure state
2235 RadioLine Driver Communications are failing > 20% of the time

2236 - 2274 ACE comms

2236 No poll from ACE. ACE-ASOS link down.
2237 ACE Communications have a bad packet format
2238 ACE-ASOS link established.
2239 - 2274 Available

2275 - 2299 GTA Radio messages

2275 GTA Radio Voltages Outside Thresholds
2276 GTA Radio Power Level Outside Thresholds
2277 GTA Radio Requested Power Greater Than Maximum Power
setting, Setting Power to 0
2278 GTA Radio Data Communications Failure
2279 GTA Radio Forward Voltage Failure
2280 GTA Radio Reflective Voltage Failure
2281 - 2299 Available

2300 - 2349 ACU FRU's Passing Error Codes

2300 ACU VME slot 1 passes (Bus Arbitrator)
2301 ACU VME slot 2 passes (CPU A)
2302 ACU VME slot 3 passes (CPU B)
2303 ACU VME slot 4 passes (Memory #1)
2304 ACU VME slot 5 passes (Memory #2)
2305 ACU VME slot 6 passes (Memory #3)
2306 ACU VME slot 7 passes (Intel IO #1)
2307 ACU VME slot 8 passes (Intel IO #2)
2308 ACU VME slot 9 passes (IO #1)
2309 ACU VME slot 10 passes (IO #2)
2310 ACU VME slot 11 passes (IO #3)
2311 ACU VME slot 12 passes (Spare)
2312 ACU VME slot 13 passes (AD)
2313 ACU VME slot 14 passes (Graphics)
2314 ACU VME slot 15 passes (Spare)
2315 ACU VME slot 16 passes (Voice Processor board #1)
2316 ACU VME slot 17 passes (Voice Processor board #2)
2317 ACU VME slot 18 passes (Spare)
2318 212 Modem #1 passes
2319 212 Modem #2 passes
2320 212 Modem #3 passes
2321 212 Modem #4 passes
2322 212 Modem #5 passes
2323 212 Modem #6 passes
2324 212 Modem #7 passes
2325 212 Modem #8 passes
2326 201 Modem #1 passes
2327 201 Modem #2 passes

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2328 ACU Radio Line Drivers passes
 2329 ACU UPS passes
 2330 ACU ALL VME Boards passes
 2331 ACU ALL Modems passes
 2332 ACU +5 volt Power Supply A passes
 2333 ACU +5 volt Power Supply B passes
 2334 ACU -12 volt Power Supply A passes
 2335 ACU -12 volt Power Supply B passes
 2336 ACU +12 volt Power Supply A passes
 2337 ACU +12 volt Power Supply B passes
 2338 ACU Batteries pass
 2339 - 2349 Available

2350 - 2449 DCP FRU's Passing Error Codes

2350 DCP #1 VME slot 1 passes (CPU A)
 2351 DCP #1 VME slot 2 passes (CPU B)
 2352 DCP #1 VME slot 3 passes (Memory)
 2353 DCP #1 VME slot 5 passes (IO #1)
 2354 DCP #1 VME slot 6 passes (IO #2)
 2355 DCP #1 VME slot 7 passes (IO #3)
 2356 DCP #1 VME slot 8 passes (IO #4)
 2357 DCP #1 VME slot 9 passes (IO #5)
 2358 DCP #1 VME slot 11 passes (AD #1)
 2359 DCP #1 VME slot 12 passes (AD #2)
 2360 DCP #1 Radio Line Drivers passes
 2361 DCP #1 Power Parameters UPS #1 passes
 2362 DCP #1 Power Parameters UPS #2 passes
 2363 DCP #1 Power Control passes
 2364 DCP #1 ALL VME cards passes
 2365 DCP #1 +5 Volts Supply A passes
 2366 DCP #1 +5 Volts Supply B passes
 2367 DCP #1 +12-12 Volts Supply A passes
 2368 DCP #1 +12-12 Volts Supply B passes
 2369 DCP #1 UPS #1 Batteries passes
 2370 DCP #1 UPS #2 Batteries passes
 2371 - 2382 Available
 2383 DCP #2 VME slot 1 passes (CPU A)
 2384 DCP #2 VME slot 2 passes (CPU B)
 2385 DCP #2 VME slot 3 passes (Memory)
 2386 DCP #2 VME slot 5 passes (IO #1)
 2387 DCP #2 VME slot 6 passes (IO #2)
 2388 DCP #2 VME slot 7 passes (IO #3)
 2389 DCP #2 VME slot 8 passes (IO #4)
 2390 DCP #2 VME slot 9 passes (IO #5)
 2391 DCP #2 VME slot 11 passes (AD #1)
 2392 DCP #2 VME slot 12 passes (AD #2)
 2393 DCP #2 Radio Line Drivers passes
 2394 DCP #2 Power Parameters UPS #1 passes
 2395 DCP #2 Power Parameters UPS #2 passes
 2396 DCP #2 Power Control passes
 2397 DCP #2 ALL VME cards passes
 2398 DCP #2 +5 Volts Supply A passes
 2399 DCP #2 +5 Volts Supply B passes
 2400 DCP #2 +12-12 Volts Supply A passes
 2401 DCP #2 +12-12 Volts Supply B passes
 2402 DCP #2 UPS #1 Batteries passes

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2403 DCP #2 UPS #2 Batteries passes
 2304 - 2315 Available
 2416 DCP #3 VME slot 1 passes (CPU A)
 2417 DCP #3 VME slot 2 passes (CPU B)
 2418 DCP #3 VME slot 3 passes (Memory)
 2419 DCP #3 VME slot 5 passes (IO #1)
 2420 DCP #3 VME slot 6 passes (IO #2)
 2421 DCP #3 VME slot 7 passes (IO #3)
 2422 DCP #3 VME slot 8 passes (IO #4)
 2423 DCP #3 VME slot 9 passes (IO #5)
 2424 DCP #3 VME slot 11 passes (AD #1)
 2425 DCP #3 VME slot 12 passes (AD #2)
 2426 DCP #3 Radio Line Drivers passes
 2427 DCP #3 Power Parameters UPS #1 passes
 2428 DCP #3 Power Parameters UPS #2 passes
 2429 DCP #3 Power Control passes
 2430 DCP #3 ALL VME cards passes
 2431 DCP #3 +5 Volts Supply A passes
 2432 DCP #3 +5 Volts Supply B passes
 2433 DCP #3 +12-12 Volts Supply A passes
 2434 DCP #3 +12-12 Volts Supply B passes
 2435 DCP #3 UPS #1 Batteries passes
 2436 DCP #3 UPS #2 Batteries passes
 2437 - 2449 Available

2450 - 2499 Power Control Page Error Codes

2450 Pressure Sensor #1 passes
 2451 Pressure Sensor #2 passes
 2452 Pressure Sensor #3 passes
 2453 Temperature/Dewpoint Sensor passes
 2454 HO83 Sensor passes
 2455 Wind Sensor passes
 2456 Present Weather Sensor #1 passes
 2457 Thunderstorm Sensor passes
 2458 Visibility #1 Sensor passes
 2459 Visibility #2 Sensor passes
 2460 Visibility #3 Sensor passes
 2461 Snow Depth Sensor passes
 2462 Freezing Rain Sensor passes
 2463 Frozen Precipitation Water Sensor passes
 2464 Sunshine Switch Sensor passes
 2465 Ceilometer #1 passes
 2466 Ceilometer #2 passes
 2467 Ceilometer #3 passes
 2468 Tipping Bucket passes
 2469 - 2499 Available

2500 - 2549 ACU FRU's Failing Error Codes

2550 - 2649 DCP FRU's Failing Error Codes

2650 - 2699 Power Control Page Error Codes

2650 Replace Pressure Sensor #1
 2651 Replace Pressure Sensor #2

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2652 Replace Pressure Sensor #3
 2653 Replace Temperature Dewpoint Sensor
 2654 Replace H083 Sensor
 2655 Replace Wind Sensor
 2656 Replace Present Weather Sensor #1
 2657 Replace Thunderstorm Sensor
 2658 Replace Visibility #1 Sensor
 2659 Replace Visibility #2 Sensor
 2660 Replace Visibility #3 Sensor
 2661 Replace Snow Depth Sensor
 2662 Replace Freezing Rain Sensor
 2663 Replace Frozen Precipitation Water Sensor
 2664 Replace Sunshine Switch Sensor
 2665 Replace Ceilometer #1
 2666 Replace Ceilometer #2
 2667 Replace Ceilometer #3
 2668 Replace Tipping Bucket
 2669 - 2699 Available

2700 - 2799 Sensor Processing Error Codes

2700 VISIBILITY MISSING SENSOR #1: 7 TO 2 MILE DROP IN 1
 MINUTE WITH WIND SPEED LESS THAN 7 KNOTS
 2701 VISIBILITY MISSING SENSOR #2: 7 TO 2 MILE DROP IN 1
 MINUTE WITH WIND SPEED LESS THAN 7 KNOTS
 2702 VISIBILITY MISSING SENSOR #3: 7 TO 2 MILE DROP IN 1
 MINUTE WITH WIND SPEED LESS THAN 7 KNOTS
 2703 VISIBILITY SENSOR #1 NOT OPERATIONAL: TOO MANY MISSING
 VALUES - 10 MIN AVERAGE IS MARKED MISSING
 2704 VISIBILITY SENSOR #2 NOT OPERATIONAL: TOO MANY MISSING
 VALUES - 10 MIN AVERAGE IS MARKED MISSING
 2705 VISIBILITY SENSOR #3 NOT OPERATIONAL: TOO MANY MISSING
 VALUES - 10 MIN AVERAGE IS MARKED MISSING
 2706 VISIBILITY SENSOR #1 IS FULLY OPERATIONAL
 2707 VISIBILITY SENSOR #2 IS FULLY OPERATIONAL
 2708 VISIBILITY SENSOR #3 IS FULLY OPERATIONAL
 2709 VISIBILITY MISSING SENSOR #1: FAILED DATA QUALITY
 CHECK - EXTINCTION COEFFICIENT OUT OF RANGE OF 0.062KM
 to 65.6KM
 2710 VISIBILITY MISSING SENSOR #2: FAILED DATA QUALITY
 CHECK - EXTINCTION COEFFICIENT OUT OF RANGE OF 0.062KM
 to 65.6KM
 2711 VISIBILITY MISSING SENSOR #3: FAILED DATA QUALITY
 CHECK - EXTINCTION COEFFICIENT OUT OF RANGE OF 0.062KM
 to 65.6KM
 2712 PHOTOMETER INOPERATIVE SENSOR #1: FAILED DATA QUALITY
 CHECK - DAY SENSOR READING AT MIDNIGHT - READING RESET
 TO DAY FOR CALCULATIONS
 2713 PHOTOMETER INOPERATIVE SENSOR #2: FAILED DATA QUALITY
 CHECK - DAY SENSOR READING AT MIDNIGHT - READING RESET
 TO DAY FOR CALCULATIONS
 2714 PHOTOMETER INOPERATIVE SENSOR #3: FAILED DATA QUALITY
 CHECK - DAY SENSOR READING AT MIDNIGHT - READING RESET
 TO DAY FOR CALCULATIONS
 2715 PHOTOMETER INOPERATIVE SENSOR #1: FAILED DATA QUALITY
 CHECK - NIGHT SENSOR READING AT NOON - READING RESET
 TO DAY FOR CALCULATIONS

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2716 PHOTOMETER INOPERATIVE SENSOR #2: FAILED DATA QUALITY
 CHECK - NIGHT SENSOR READING AT NOON - READING RESET
 TO DAY FOR CALCULATIONS
 2717 PHOTOMETER INOPERATIVE SENSOR #3: FAILED DATA QUALITY
 CHECK - NIGHT SENSOR READING AT NOON - READING RESET
 TO DAY FOR CALCULATIONS
 2718 PHOTOMETER INOPERATIVE SENSOR #1: READING IS NOT DAY
 OR NIGHT - READINGS ARE RESET TO DAY FOR CALCULATIONS
 2719 PHOTOMETER INOPERATIVE SENSOR #2: READING IS NOT DAY
 OR NIGHT - READINGS ARE RESET TO DAY FOR CALCULATIONS
 2720 PHOTOMETER INOPERATIVE SENSOR #3: READING IS NOT DAY
 OR NIGHT - READINGS ARE RESET TO DAY FOR CALCULATIONS
 2721 VOICE PROCESSOR ERROR
 2722 PRESSURE SENSOR #1: MISSING DATA
 2723 PRESSURE SENSOR #2: MISSING DATA
 2724 PRESSURE SENSOR #3: MISSING DATA
 2725 AMBIENT TEMPERATURE READING FROM SENSOR IS MISSING
 2726 DEWPOINT TEMPERATURE READING FROM SENSOR IS MISSING
 2727 WIND SENSOR IS INOPERATIONAL
 2728 WIND DIRECTION MISSING
 2729 PRESSURE SENSOR #1: DIFFERENCE ERROR
 2730 PRESSURE SENSOR #2: DIFFERENCE ERROR
 2731 PRESSURE SENSOR #3: DIFFERENCE ERROR
 2732 PRESENT WEATHER INOPERATIVE
 2733 PRESENT WEATHER SENSOR IS OPERATIONAL
 2734 FREEZING RAIN INOPERATIVE
 2735 FREEZING RAIN SENSOR IS OPERATIONAL
 2736 CEILOMETER #1 IS INOPERATIVE
 2737 CEILOMETER #2 IS INOPERATIVE
 2738 CEILOMETER #3 IS INOPERATIVE
 2739 SUNSHINE SENSOR READING MISSING
 2740 SNOW DEPTH SENSOR READING MISSING
 2741 CUMULATIVE PRECIPITATION SENSOR READING MISSING
 2742 TEMPERATURE SENSOR IS OPERATIONAL
 2743 TEMPERATURE SENSOR IS INOPERATIONAL
 2744 AMBIENT TEMPERATURE READINGS NOW VALID
 2745 DEWPOINT TEMPERATURE READINGS NOW VALID
 2746 DEWPOINT TEMPERATURE IS INOPERATIONAL
 2748 CUMULATIVE PRECIPITATION IS OPERATIONAL
 2750 SUN SENSOR IS OPERATIVE
 2751 SNOW DEPTH SENSOR IS OPERATIVE
 2752 CEILOMETER #1 IS OPERATIVE
 2753 CEILOMETER #2 IS OPERATIVE
 2754 CEILOMETER #3 IS OPERATIVE
 2755 PHOTOMETER #1 IS OPERATIONAL
 2756 PHOTOMETER #2 IS OPERATIONAL
 2757 PHOTOMETER #3 IS OPERATIONAL
 2758 AMBIENT TEMPERATURE MARKED MISSING: FAILED DATA
 QUALITY CHECK - NOT BETWEEN MINUS 80 TO 130 DEGREES F
 2759 DEWPOINT TEMPERATURE MARKED MISSING: FAILED DATA
 QUALITY CHECK - NOT BETWEEN MINUS 80 to 86 DEGREES F
 2760 AMBIENT TEMPERATURE MARKED MISSING: FAILED DATA
 QUALITY CHECK - FAILED TO VARY MORE THAN 0.1 DEGREES F
 OVER THE PAST 120 MINUTES
 2761 DEWPOINT TEMPERATURE MARKED MISSING: FAILED DATA
 QUALITY CHECK - FAILED TO VARY MORE THAN 0.1 DEGREES F
 OVER THE PAST 120 MINUTES

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2762 AMBIENT TEMPERATURE MARKED MISSING: FAILED DATA
 QUALITY CHECK - EXCEEDED RATE OF CHANGE OF 10 DEGREES
 F OVER THE PAST MINUTE
 2763 DEWPOINT TEMPERATURE MARKED MISSING: FAILED DATA
 QUALITY CHECK - EXCEEDED RATE OF CHANGE OF 10 DEGREES
 F OVER THE PAST MINUTE
 2764 VISIBILITY SENSOR #1: 10 MIN AVERAGE NOW VALID - LESS
 THAN 3 MISSING VALUES
 2765 VISIBILITY SENSOR #2: 10 MIN AVERAGE NOW VALID - LESS
 THAN 3 MISSING VALUES
 2766 VISIBILITY SENSOR #3: 10 MIN AVERAGE NOW VALID - LESS
 THAN 3 MISSING VALUES
 2767 VISIBILITY SENSOR #1: 1-MINUTE RATE OF CHANGE NOW VALID
 2768 VISIBILITY SENSOR #2: 1-MINUTE RATE OF CHANGE NOW VALID
 2769 VISIBILITY SENSOR #3: 1-MINUTE RATE OF CHANGE NOW VALID
 2770 VISIBILITY SENSOR #1: EXTINCTION COEFFICIENT NOW IN VALID RANGE
 2771 VISIBILITY SENSOR #2: EXTINCTION COEFFICIENT NOW IN VALID RANGE
 2772 VISIBILITY SENSOR #3: EXTINCTION COEFFICIENT NOW IN VALID RANGE
 2773 AMBIENT TEMPERATURE READING FROM SENSOR AVAILABLE
 2774 DEWPOINT TEMPERATURE READING FROM SENSOR AVAILABLE
 2775 WIND SPEED MARKED MISSING: FAILED DATA QUALITY CHECK -
 FAILED TO VARY MORE THAT 1 KNOT OVER 2 MIN.
 2776 WIND DIRECTION MARKED MISSING: FAILED DATA QUALITY
 CHECK - FAILED TO VARY MORE THAN 1 DEG. OVER 2 MIN.
 2777 WIND SPEED MARKED MISSING: FAILED DATA QUALITY CHECK -
 EXCEEDED CHANGE RATE OF 10 KNOTS
 2778 WIND DIRECTION MARKED MISSING: FAILED DATA QUALITY
 CHECK - EXCEEDED CHANGE RATE OF 130 DEGREES
 2779 WIND SPEED MARKED MISSING: SENSOR SPEED DATA MISSING
 2780 WIND DIRECTION MARKED MISSING: SENSOR DIRECTION DATA MISSING
 2781 WIND SPEED MARKED MISSING: FAILED DATA QUALITY CHECK -
 EXCEEDED RANGE OF 0 TO 125 KNOTS
 2782 WIND DIRECTION MARKED MISSING: FAILED DATA QUALITY
 CHECK - EXCEEDED RANGE OF 0 TO 359 DEGREES
 2783 WIND SENSOR OPERATIONAL
 2784 WIND SENSOR DATA AVAILABLE
 2785 WIND SPEED AND DIRECTION MARKED MISSING: WIND SENSOR DATA NOT
 AVAILABLE
 2786 WIND SPEED DATA NO LONGER MISSING
 2787 WIND DIRECTION DATA NO LONGER MISSING
 2788 WIND DIRECTION MARKED MISSING: INSUFFICIENT NUMBER OF
 VALID WIND DIRECTIONS RECEIVED
 2789 WIND SPEED MARKED MISSING: INSUFFICIENT NUMBER OF
 VALID WIND SPEEDS RECIEVED
 2790 PHOTOMETER INOPERATIVE SENSOR #1: READING IS MISSING -
 READINGS ARE RESET TO DAY FOR CALCULATIONS
 2791 PHOTOMETER INOPERATIVE SENSOR #2: READING IS MISSING -
 READINGS ARE RESET TO DAY FOR CALCULATIONS
 2792 PHOTOMETER INOPERATIVE SENSOR #3: READING IS MISSING -
 READINGS ARE RESET TO DAY FOR CALCULATIONS
 2793 VISIBILITY SENSOR #1 NOT OPERATIONAL: VISIBILITY
 DROPPED FROM 7 MILES TO LESS THAN 2
 2794 VISIBILITY SENSOR #2 NOT OPERATIONAL: VISIBILITY
 DROPPED FROM 7 MILES TO LESS THAN 2
 2795 VISIBILITY SENSOR #3 NOT OPERATIONAL: VISIBILITY
 DROPPED FROM 7 MILES TO LESS THAN 2
 2796 CUMULATIVE PRECIPITATION SENSOR READING INVALID

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2797 DEWPOINT TEMPERATURE IS OPERATIONAL
2798 CUMULATIVE PRECIPITATION IS INOPERATIVE
2799 CUMULATIVE PRECIPITATION Data Quality Error

Number Characters (NUM CHARS) - The number of characters in the remarks field.

Remarks (REMARKS) - A 1 to 272 character message that provides information about the ASOS system, instrumentation, or operations which may affect the data or explain malfunction or failures.

3. **Start Date:** Data begin in September 1992 for a limited number of stations and time periods. By June 1994, approximately 34 stations, mainly in the central U.S., were commissioned - transmitting official observations.

4. **Stop Date:** Ongoing.

5. **Coverage:** All ASOS stations worldwide. ASOS stations are located in the contiguous United States, Alaska, Hawaii and Puerto Rico. The majority of NWS ASOS stations will replace existing first-order stations at major airports. FAA will install ASOS sites at airports. A few remote sites will also be installed. The network consists of NWS and FAA ASOS sites and is expected to number approximately 1200 when fully commissioned.

a. Southernmost Latitude	18N
b. Northernmost Latitude	72N
c. Westernmost Longitude	171W
d. Easternmost Longitude	65W

6. **How to Order Data:**

Ask NCDC's Climate Services about the cost of obtaining this data set.
Phone: 828-271-4800
FAX: 828-271-4876
E-mail: NCDC.Orders@noaa.gov

7. **Archiving Data Center:**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, NC 28801-5001
Phone: (828) 271-4800.

8. **Technical Contact:**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, NC 28801-5001
Phone: (828) 271-4800.

9. **Known Uncorrected Problems:** None.

10. **Quality Statement:** No information provided with original documentation, and no Quality Control of the data is done at NCDC.

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11. Essential Companion Datasets: None.

12. References:

ASOS Software User's Manual at:

<http://www.ops1.nws.noaa.gov/ASOS/ASOS-SUM.htm>